

WHAT IS CLAIMED IS:

1. A computer comprising:

a memory for storing a plurality of operating systems and a plurality of processes or threads to be performed by each of said operating systems; and

a processor for executing said operating systems in accordance with priorities assigned to said processes or threads;

wherein said processor retrieves the priorities of processes or threads to be performed by any one of said operating systems, translates the retrieved priorities into priorities common to said plurality of operating systems, selects the operating system to be executed in accordance with the priorities resulting from the translation, and executes the selected operating system.

2. A computer according to claim 1, wherein said memory comprises a priority translation table in which to map into the common priorities the priorities of the processes or threads to be performed by said operating systems, and wherein said processor selects the operating system to be executed on the basis of said priority translation table.

3. A computer according to claim 1 ~~or~~ 2, wherein said processor determines priorities specific to each of

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said plurality of operating systems on the basis of the priorities common to said operating systems, thereby changing the priorities of said plurality of processes or threads to be performed by each of said operating systems.

4. A computer according to claim 3, wherein said memory comprises a priority reverse translation table in which to map said common priorities into the priorities specific to each of said operating systems, and wherein said processor changes the priorities of said plurality of processes or threads on the basis of said priority reverse translation table.

Claim 1

5. A computer according to any one of claims 1 through 4, wherein, if a process or a thread is designated for execution, said processor elevates the priority of the operating system in charge of carrying out the designated process or thread, the processor further lowering the priority of the operating system in question when said designated process or thread is terminated in execution.

6. A data storage medium accommodating:

a plurality of processes or threads;

a plurality of operating systems for performing said plurality of processes or threads and providing notification of a priority of a currently executing process or thread;

a priority translating step of translating priorities sent from any one of said operating systems into priorities common to said plurality of operating systems; and

a priority comparing step of comparing the common priorities obtained by said priority translating step in order to select and execute preferentially the operating system having a common priority higher than that of any other operating system.

7. An operating system execution method for selectively executing any one of a plurality of operating systems, said operating system execution method comprising the steps of:

translating priorities of processes or threads to be performed by each of said operating systems into priorities common to said plurality of operating systems; and

comparing the common priorities obtained by the priority translating step in order to select and execute preferentially the operating system having a common priority higher than that of any other operating system.

8. An operating system execution method according to claim 7, wherein said priority translating step, in translating priorities specific to each of said operating systems into common priorities, translates the priorities of different operating systems into common priorities that

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differ between said different operating systems.

9. An operating system execution method according to
claim 7-~~or 8~~, wherein said priority translating step,
besides translating priorities of processes or threads to
be performed by each of said operating systems into the
common priorities, translates at least an interrupt
handling state, a self-processing state of any operating
system, and an idle state into common priorities.

10. A computer system having a plurality of
operating systems and switching means for switching said
plurality of operating systems, each of said operating
systems performing a plurality of processes or threads in
accordance with priorities assigned to said processes or
threads:

wherein each of said plurality of operating systems
further comprises priority translating means for
translating the priorities of said processes or threads
performed by the respective operating systems into
priorities that are common throughout said computer system,
and priority notifying means for notifying said switching
means of the common priorities obtained by said priority
translating means; and

wherein said switching means further comprises
priority comparing means for comparing the common
priorities sent from each of said operating systems in

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order to select and execute preferentially the operating system having a common priority higher than that of any other operating system.

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